Remarks

The Final Office Action dated September 3, 2009, listed the following rejections: claims 1-10 and 21-28 stand rejected under 35 U.S.C. § 102(b) over the Haberger reference (U.S. Patent No. 6,417,075); and claims 9 and 27 stand rejected under U.S.C. § 103(a) over the '075 reference. Applicant traverses all of the rejections and, unless explicitly stated by the Applicant, does not acquiesce to any objection, rejection or averment made in the Office Action.

Applicant respectfully traverses the § 102(b) rejection of claims 1-10 and 21-28 and the § 103(a) rejection of claims 9 and 27 because the '075 reference does not correspond to aspects of the claimed invention directed to a carrier having a surface and pillar extensions that extend from the surface, with the pillar extensions having rounded corners that form a gradual interface between the sidewalls of the pillar extensions and the surface of the carrier. The Examiner continues to erroneously assert that the '075 reference teaches such aspects of the claimed invention despite the fact that the '075 reference does not support such assertions. In particular, the Examiner improperly relies upon Col. 7:35-40 of the '075 reference, which does not concern the interface between the sidewalls of channels 5 and the surface of the substrate, but instead teaches that the shape of the lateral extension of the channels 5 can be rectangular, round, meandering or polygon-type. In other words, the '075 reference teaches that, when the wafer is viewed from the top as shown in Figure 3 by the wafers labeled 2, the shape of the channels can be rectangular, round, meandering or polygon-type. *See, e.g.,* Col. 7:28-44. As such, Col. 7:35-40 of the '075 reference does not provide any support for the Examiner's erroneous assertion that the '075 reference teaches rounded corners forming a gradual interface, as in the claimed invention.

Applicant notes that the Examiner apparently confuses the unrelated teachings of the '075 reference directed to the different cross-sectional shapes of the channels 5 (shown by the four example cross sections at the bottom of Figure 30) with the example shapes of the lateral extension of the channels 5. *See, e.g.*, Col. 7:45-48. The example shapes of the lateral extension of the channels 5 (*e.g.,* rectangular, round, meandering or polygon-type) are not referring to the cross-sectional shapes of the channels 5 shown in Figure 3 and relied upon by the Examiner. In particular, it is unclear to Applicant how

the cross-sectional shapes of the channels 5 could be meandering or even round. As such, Applicant submits that it would be clear to the skilled artisan that the example shapes of the lateral extension of the channels 5 are not referring to the cross-sectional shapes of the channels 5 shown in Figure 3. Accordingly, the Examiner has improperly based the rejections on a misinterpretation of the '075 reference.

Moreover, the Examiner's assertions of correspondence are improperly based on aspects that are not recited in Applicant's claims. For example, the Examiner erroneously asserts that the trenches of the '075 reference are formed "by the same process as instantly claimed (selective patterning with photolithography and then wet or dry etching), and therefore are expected to have the same structural features as instantly claimed." Applicant's claims do not include any process steps, let alone any steps that involve photolithography or any type of etching. As such, it is entirely improper for the Examiner to allege correspondence based on aspects that are not present in Applicant's claims.

In addition, the Examiner's continued assertion that "rounded corners naturally occur during forming the structures through wet etching" is directly contradicted by the '075 reference. For example, where the '075 reference teaches that structures can be formed into the substrate (*i.e.,* the asserted pillar extensions), these structures are taught by the '075 reference as not having rounded corners as is shown in the left most blow-up of the channels 5 in Figure 3. *See, also* Col. 7:44-48. The '075 reference further expressly teaches that the recesses/channels 5 that are formed in the oxide 3 can meet the surface of the wafer at an angle of 90° (among other orientations), which do not result in rounded corners. *See, e.g.,* Figure 3, Col. 4:40-53 Col. 7:5-8 and Col. 7:44-48. Thus, any assertion of inherency with regard to the '075 reference teaching rounded corners would be improper. *See, e.g.,* M.P.E.P. § 2112. Applicant respectfully submits that the Examiner's attempt to rely upon another reference (US 2001/0023960) to support the assertion regarding wet etching is improper due to the fact that the '075 reference expressly teaches that its etching does not necessarily result in rounded corners. The rejections presented in the instant Office Action are improperly based on mere speculation by the Examiner that is directly contradicted by the '075 reference and, as such, the Examiner has failed to establish a basis for a § 102 rejection.

In view of the above, the '075 reference does not correspond to the claimed invention. Accordingly, the § 102(b) and § 103(a) rejections are improper and Applicant requests that they be withdrawn.

Applicant further traverses the § 102(b) rejection of claim 24 because the '075 reference does not correspond to aspects of the claimed invention directed to the second material being thermally oxidized semiconductor material. The Examiner erroneously bases the rejection of claim 24 on "product by process case law" when no product by process limitations are present in claim 24. Accordingly, no basis has been presented for the rejection of claim 24 and the rejection cannot be maintained. Applicant once again brings to the Examiner's attention that claim 24 recites what the second material is (*i.e.*, thermally oxidized semiconductor material). As such, the Office Action has improperly ignored these aspects of claim 24, which are not taught by the '075 reference. Thus, the § 102(b) rejection of claim 24 is improper and must be withdrawn.

In view of the remarks above, Applicant believes that each of the rejections/objections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063.

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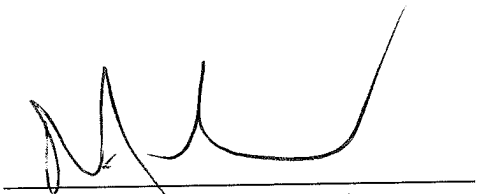
By: 

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